

**REMARKS**

Claims 1-21 are pending in the present application. The Examiner has rejected claims 1-21.

**I. CORRESPONDENCE ADDRESS**

Applicants respectfully note that the Office Action was mailed incorrectly to the following address: Christie, Parker & Hale, LLP, 350 West Colorado Boulevard, Suite 500, Pasadena, CA 91105.

Applicants have previously filed a power of attorney by an assignee of the entire interest, a revocation of prior powers and a change of correspondence address on November 6, 2003. In that filing, Applicants revoked all powers of attorney previously given to, for example, Christie, Parker & Hale, LLP and appointed the attorneys and agents of McAndrews, Held & Malloy to prosecute and transact all business in the U.S. Patent and Trademark Office for the present application.

Applicants also submitted a change of correspondence address in which Applicants requested that correspondence be sent to:

**Christopher C. Winslade  
McAndrews, Held & Malloy  
500 W. Madison Street  
Suite 3400  
Chicago, IL 60661**

As a courtesy to the Examiner, Applicants have enclosed a copy of the filing of November 6, 2003 including: (1) a letter dated November 6, 2003, (2) a certificate of mailing and (3) a document entitled "Power of Attorney by Assignee of Entire Interest, Revocation of Prior Powers and Change of Correspondence Address".

Applicants respectfully request that subsequent communications be sent to Christopher C. Winslade of McAndrews, Held & Malloy of Chicago, Illinois.

**II. CHANGE IN ATTORNEY DOCKET NUMBER**

Applicants respectfully request that the attorney docket number for the present application be changed from "40886/CAG/B600" to --15258US08--.

**III. REJECTION UNDER 35 U.S.C. § 103(a)  
WITH RESPECT TO CLAIMS 1-6, 8-13 AND 15-20**

Although the Office Action states that claims 1-6 and 8-20 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,686,867 ("Sutardja") in view of U.S. Patent No. 5,341,110 ("Nardi"). It is clear from the Office Action that claim 14 was not discussed in this section (i.e., section 2) of the Office Action, but was rejected as obvious in another section (i.e., section 3). Applicants respectfully submit that claims 1-6, 8-13 and 15-20 stand rejected under 35 U.S.C. § 103(a) as being obvious over Sutardja in view of Nardi. Applicants respectfully traverse the rejection.

M.P.E.P. § 2145(X)(D)(2) clearly states that "[i]t is improper to combine references where the references teach away from their combination." Applicants respectfully submit that Sutardja and Nardi were improperly combined.

Nardi teaches a YIG tuned resonator having inductive coils and disparages, with specificity, methods of resonator tuning that do not rely upon inductive coils. Applicants respectfully draw the attention of the Examiner to col. 2, lines 18-22 of Nardi which states that "[m]ethods of resonator tuning not relying upon inductive coils (e.g., those using varactor diodes), have tended to degrade phase noise performance by inducing non-linear tuning characteristics or by lowering the oscillator Q". On the other hand, Sutardja teaches away from Nardi by not relying upon inductive coils for resonator tuning. Instead, Sutardja teaches other methods for resonator tuning. See, e.g., voltage controlled oscillators (VCOs) illustrated in FIGS. 2-5 and 9-11 of Sutardja. Accordingly, since Sutardja teaches away from Nardi, Sutardja and Nardi cannot be properly combined.

Since Sutardja and Nardi cannot be properly combined, an obviousness rejection based on the combination of Sutardja and Nardi cannot be maintained. It is therefore respectfully requested that the rejection under 35 U.S.C. § 103(a) be withdrawn with respect to claims 1-6, 8-13 and 15-20.

Furthermore, Applicants respectfully request that, in presenting a *prima facie* case of obviousness, the Examiner point out with particularity how the cited references teach or suggest each and every element as set forth in the claims. For example, Applicants respectfully draw the attention of the Examiner to the rejection of claims 3 and 4 as exemplary. Claim 3 recites "a bandpass filter to filter the mixed signal before being applied to the phase detector" and claim 4

recites "a limiter to limit the filtered mixed signal from the filter before being applied to the phase detector". In each case, the Examiner admits that Sutardja fails to teach at least these elements; however, in using Nardi to maintain the obviousness rejection, the Examiner fails to point out or to discuss where or how Nardi teaches, for example, "a bandpass filter to filter the mixed signal before being applied to the phase detector" or "a limiter to limit the filtered mixed signal from the filter before being applied to the phase detector" as set forth in claims 3 and 4, respectively. Applicants respectfully request that, in any subsequent Office Action, the Examiner discuss with specificity how the cited references teach or suggest each and every element as set forth in the claims.

**IV. REJECTION UNDER 35 U.S.C. § 103(a)  
WITH RESPECT TO CLAIMS 7, 14, AND 21**

Claims 7, 14 and 21 stand rejected under 35 U.S.C. § 103(a) as being obvious over Sutardja in view of Nardi and further in view of U.S. Patent No. 4,270,206 ("Hughes"). Applicants respectfully traverse the rejection.

For at least the above-stated reasons, Sutardja cannot be properly combined with Nardi. Since Sutardja cannot be properly combined with Nardi, an obviousness rejection based on the combination of Sutardja and Nardi cannot be maintained. Accordingly, an obviousness rejection based on the combination of Sutardja, Nardi and Hughes also cannot be maintained. It is therefore respectfully requested that the rejection under 35 U.S.C. § 103(a) be withdrawn with respect to claims 7, 14 and 21.

Furthermore, some of the claims recite a bandpass filter and a limiter. With respect to the bandpass filter, the Examiner notes that Hughes teaches a bandpass filter-amplifier means 74. The bandpass filter-amplifier means 74 has an input 74a which is directly connected to the receiver input 16a. The bandpass filter-amplifier means 74 is **NOT** part of any phase-locked loop. Applicants respectfully draw the attention of the Examiner to the fact that there is no phase detector, for example, in the bandpass filter-amplifier means 74. See, e.g., FIG. 1a of Hughes. The bandpass filter-amplifier means 74 is **NOT** part of, for example, the frequency synthesis section 20 as illustrated in FIG. 1d of Hughes. Thus, there is no motivation for relocating the bandpass filter-amplifier means 74, which is in the front end of the receiver, and inserting the bandpass filter-amplifier means 74 in, for example, the frequency synthesis section 20. In fact,

since Hughes does not employ the bandpass filter-amplifier means 74 in a phase-locked loop, Hughes teaches away from inserting, as suggested by the Examiner, the bandpass filter-amplifier means 74 into the phase-locked loop as alleged in the combination of Sutardja and Nardi.

In addition, although the Examiner states that Sutardja and Nardi do not disclose a limiter, the Examiner has not pointed out specifically where or how Hughes teaches a limiter as set forth in some of the claims. Applicants respectfully submit that the combination of Sutardja, Nardi and Hughes, individually or combined, does not teach or suggest a limiter.

For at least the above reasons, Applicants respectfully request that the rejection under 35 U.S.C. § 103(a) be withdrawn with respect to claims 7, 14 and 21.

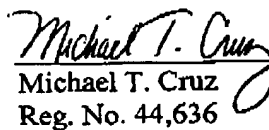
#### V. CONCLUSION

In view of at least the foregoing, it is respectfully submitted that the pending claims 1-21 are in condition for allowance. Should anything remain in order to place the present application in condition for allowance, the Examiner is kindly invited to contact the undersigned at the below-listed telephone number.

Please charge any required fees not paid herewith or credit any overpayment to the Deposit Account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

Dated: June 1, 2004

Respectfully submitted,

  
Michael T. Cruz  
Reg. No. 44,636

McAndrews, Held & Malloy, Ltd.  
500 West Madison Street, 34th Floor  
Chicago, Illinois 60661  
Telephone: (312) 775-8084  
Facsimile: (312) 775-8100